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for

GAMING MACHINE HAVING AN ENHANCED GAME PLAY SCHEME

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GAMING MACHINE HAVING AN ENHANCED GAME PLAY SCHEME

Reference to Related Applications

[0001] This application is related to U.S. Patent Application Serial No. 10/428,516 filed May 1, 2003 and entitled "Gaming Machine With Interactive Pop-Up Windows," which is incorporated herein by reference in its entirety.

Field of the Disclosure

[0002] This invention is directed to gaming machines, and more particularly, to a gaming machine having an enhanced game play scheme.

Background

[0003] Gaming machines providing base games such as electronically driven video slots, video poker, video blackjack, video keno, video bingo, video pachinko, video lottery, and mechanically driven reel slots, etc., are well known in the gaming industry. Generally gaming machines are configured to operate as "stand-alone" units (that may or may not be coupled to a backroom computer) where the outcome of game play is "locally determined", or as part of a server-based gaming network where the outcome of game play may be either locally determined or "centrally determined".

[0004] Slot games provided by either video slot machines or mechanical spinning reel slot machines have proven to be one of the most popular wagering games. As a result, slot game designers continually seek ways to improve game play and increase coin-in revenue per wagering game (e.g., the amount wagered by the player per game). For example, competition for slot game players has resulted in

game designs with lower game play denominations for those players desiring maximum game play time for their coin-in. Competition has also resulted in slot game designs with higher numbers of pay lines to increase an occurrence of a winning symbol combination per wagering game and to increase coin-in revenue per wagering game. There is a visual limit, however, to the maximum number of pay lines that can be offered per wagering game.

[0005] Bonus games are also utilized to attract slot game players and to increase coin-in revenue per wagering game. Bonus games, typically initiated by an occurrence of a bonus triggering event occurring during slot game play, are desirable because they generally result in some type of win for the player. For example, some bonus games associated with slot game play provide “free” spins to the player.

[0006] Because of the popularity of bonus games, gaming machine manufacturers have attempted to use them to as a basis to increase coin-in revenue per wagering game played. For example, one bonus scheme allows a player to buy a chance to participate in a bonus game where bonus game play may yield a progressive jackpot. This chance to participate in the bonus game is provided to the player in exchange for the player providing “additional coin-in” (*i.e.*, coin-in that is above what is required for standard base game play on the gaming machine). Although this scheme does result in an increased coin-in amount per slot game played, the additional coin-in amounts are utilized to fund the progressive jackpot rather than to increase coin-in revenues per game.

[0007] Another bonus scheme allows a player to pay 5 additional credits per spin (multiplied by the amount bet per line) to possibly qualify for bonus game play if a bonus triggering event occurs during the reel spin and if the player has selected the maximum number of pay lines bet per game. Without the 5 additional credits per spin per pay line, bonus game play will never be triggered. Thus, for a player desiring a possible chance to participate in bonus game play, the player's coin-in must increase from 20 credits to 25 credits per pay line selected. Although this scheme does result in an increased coin-in revenue amount per game, the player must always select to play the maximum number of pay lines; a costly proposition for the player just to have a possible chance to participate in bonus game play.

Summary of the Invention

[0008] In general, the present invention provides a gaming machine having an enhanced game play scheme where, in response to a first wager for base game play plus additional coin-in per game (a second wager), a player has an opportunity for enhanced game play. In other words, for additional coin-in per game, an existing aspect of game play is enhanced. Therefore, depending on the gaming machine configuration, the additional coin-in per game may result in one of a number enhanced game play schemes that increase player excitement while at the same time, increase coin-in revenue per game played.

[0009] In one embodiment, the additional coin-in per game may result in more frequent bonus game play via lowering a threshold for a bonus triggering event to occur.

[0010] In another embodiment, the additional coin-in per game may result in an enhanced or “supersized” bonus game to be awarded to the player when bonus game play is triggered. Enhanced bonus game play results in an higher value payout average than standard bonus game play.

[0011] In a yet another embodiment, the additional coin-in per game may result in an enhanced bonus game having a lower threshold for a bonus triggering event to occur; a combination enhanced bonus game scheme.

[0012] In a further embodiment, the additional coin-in per game may result in a winning symbol combination paying an enhanced award associated with an enhanced pay table rather than paying a standard award associated with a standard pay table.

[0013] In yet a further embodiment, the additional coin-in per game may operate as insurance yielding a guaranteed value payout in the event of a non-winning outcome of game play.

[0014] In an additional embodiment, the additional coin-in per game may be collected after the initial wager at a time when the game outcome is only partially displayed. The additional coin-in per game results in a larger value payout in the event of a winning outcome.

[0015] In yet an additional embodiment, the additional coin-in per game may activate game features.

[0016] In another additional embodiment, the additional coin-in per game may activate one or more special reel symbol(s) capable of being repositioned within an outcome symbol array to yield a higher value payout.

[0017] In another further embodiment, the additional coin-in per game may activate additional reel movement after the outcome symbol array is displayed to reposition an extra reel symbol into the outcome symbol array and yield a higher value payout.

[0018] In yet another further embodiment, the additional coin-in per game may activate a possibility of generating an extra pay line that includes an extra reel symbol if the extra pay line results in a higher value payout.

[0019] Additional aspects of the invention will be apparent to those of ordinary skill in the art in view of the detailed description of various embodiments, which is made with reference to the drawings, a brief description of which is provided below.

Brief Description of the Drawings

[0020] FIGURE 1 is a perspective view of an embodiment of a gaming machine having an enhanced game play scheme in accordance the invention.

[0021] FIGURE 2 is a block diagram of the electronic components of the gaming machine of FIG. 1.

[0022] FIGURE 3 is a flowchart of an embodiment of an enhanced game play scheme routine that may be performed during game play of the gaming machine of FIG. 1.

[0023] FIGURE 4 is a flowchart of another embodiment of an enhanced game play scheme routine that may be performed during game play of the gaming machine of FIG. 1.

[0024] FIGURE 5 is an exemplary mechanical button panel for enhanced game play on the gaming machine of FIG.1.

[0025] FIGURE 6 is an exemplary display screen that may be displayed on the gaming machine of FIG.1 during performance of the enhanced game play scheme routine of FIG. 3.

[0026] FIGURES 7-12 are a series of exemplary display screens that may be displayed during performance of yet another embodiment of an enhanced game play scheme routine performed during game play of the gaming machine of FIG. 1.

[0027] FIGS. 13-18 are a series of exemplary display screens that may be displayed during performance of a further embodiment of an enhanced game play scheme routine during game play of the gaming machine of FIG. 1.

[0028] FIGS. 19-22 are a series of exemplary display screens that may be displayed during performance of yet a further embodiment of an enhanced game play scheme routine during game play of the gaming machine of FIG. 1

Description of the Preferred Examples

[0029] The description of the preferred examples is to be construed as exemplary only and does not describe every possible embodiment of the invention.

Numerous alternative embodiments could be implemented, using either current technology or technology developed after the filing date of this patent, which would still fall within the scope of the claims defining the invention.

[0030] In general, the present invention provides a gaming machine having a number of enhanced game play schemes where, in response to receipt of a second wager to select an option for enhanced game play, a player is provided with enhanced game play. The option may be provided before or after a first wager from the player. Enhanced game play may include (1) providing more frequent bonus game play, (2) providing a larger value payout for bonus game play, (3) providing more frequent bonus game play and providing a larger payout for bonus game play, (4) providing a larger value payout for base game play, (5) providing a guaranteed payout at a predetermined value if a game outcome is a non-winning outcome, (6) providing one or more game features, (7) providing a larger value payout for base game play if, after a partial outcome of game play is displayed, the player selects the option, (8) activating an extra wild symbol capable of being repositioned within an outcome symbol array to yield a higher value payout, (9) providing a possibility of an additional movement of a reel to reposition an extra reel symbol, above or below the outcome symbol array, into the outcome symbol array to yield a higher value payout, or (10) providing a possibility of generating an extra pay line that includes an extra reel symbol, above or below an outcome symbol array, if the extra pay line results in a higher value payout, to name a few.

[0031] As described below, the present invention is preferably implemented using a video slot machine. It is contemplated that the present invention may also be implemented using other types of video gaming machines or, in some cases, using an adaptable mechanical spinning reel gaming machine having flat panel

transmissive display positioned in front of the mechanical spinning reels where the flat panel transmissive display is able to superimpose video images upon the mechanical spinning reels. A mechanical spinning reel gaming machine with superimposed video images generated via a variable display device such as a flat panel transmissive display is described in United States Patent 6,517,433, entitled "Reel Spinning Slot Machine With Superimposed Video Image", naming Loose et al. as inventors, filed May 22, 2001 ("the Loose et al. patent"), and herein incorporated by reference in its entirety

[0032] An advantageous feature of the gaming machine having an enhanced game play scheme is that, in response to an additional wager per game, a player has an opportunity for enhanced game play, thereby increasing player enjoyment and increasing coin-in revenue per game. Thus, unlike prior art schemes that allow a player to become eligible for possible game play (e.g., bonus game play, progressive jackpot game play) via an additional wager, the gaming machine having one or more enhanced game play scheme allows a player "super-size" existing game play by enhancing base game play, enhancing bonus game play, enhancing the frequency of bonus game play, enhancing pay table value payouts, etc., via a second, or additional, wager.

[0033] FIG. 1 is a perspective view of one possible embodiment of a gaming machine 10 offering an enhanced game play scheme. The gaming machine 10 may be configured as a stand-alone gaming machine or may be configured as part of a server-based gaming network having one or more coupled servers and a number of additional gaming machines. The gaming machine 10 may be any

type of wagering gaming machine offering the enhanced game play scheme and may therefore have varying structures and methods of operation. For example, the gaming machine 10 may be a video gaming machine configured to play a video wagering game, or it may be a mechanical spinning reel slot machine (with or without an arm mechanism). For exemplary purposes, various elements of the gaming machine 10 are described below, but it should be understood that numerous other elements may exist and may be utilized in any number of combinations to create a variety of gaming machine types.

[0034] Referring to Fig. 1, the gaming machine 10 includes a cabinet 12 having a door 14 to provide access to the interior of the gaming machine 10. Attached to the door 14 are audio speaker grills 17 and a belly glass area 18 that typically displays game theme artwork. Sounds provided via the audio speaker grills 17 and associated audio speakers may include the sound of spinning slot machine reels, a dealer's voice, music, announcements or any other audio related to the wagering game.

[0035] Also attached to the door 14 are a number of value input devices that allow a player to insert value for game play. The value input devices may include a coin slot acceptor 20 or a note acceptor 22 to input value to the gaming machine 10. The note acceptor 22 may accept value in any number of forms, including currency or a currency-sized paper ticket voucher inscribed with information such as a bar code representing value, the name of the casino, the date, etc. As used herein, the term "value" may encompass gaming tokens,

coins, paper currency, ticket vouchers, credit or debit cards, smart cards, and any other object representative of value.

[0036] The gaming machine 10 may also include a player tracking area 23 having a card reader 24, a keypad 25 and a small display 26. As will be appreciated by those of ordinary skill in the art, the player tracking area 23 may be located in any number of areas of the gaming machine 10. The small display 26 may be implemented using a vacuum fluorescent display (VFD), a liquid crystal display (LCD), an LED display, and/or a touch screen to display information to a game player or casino employee. The card reader 24 may include any type of card reading device, such as a magnetic card reader, memory card reader, an optical card reader, etc. The card reader 24 may be used to read data from a card (e.g., a credit card, a player tracking card, a smart card, etc.) offered by a player. If provided for player tracking purposes, the card reader 24 may be used to read data from, and/or write data to, cards capable of storing data. Such data may include the identity of a player, the identity of a casino, the player's gaming habits, etc. Once gathered, the data can be "mined" (*i.e.*, the data is sorted to identify patterns and establish relationships) for any number of purposes including administering player awards, distinguishing player preferences and habits, accounting, etc.

[0037] The gaming machine 10 also includes a main display device 31 for displaying video game images (e.g., simulated reel symbols, simulated cards, simulated numbers, etc.), or in the case of a mechanical spinning reel slot machine, for displaying a symbol array of artwork and blank symbols affixed to

mechanical spinning reels viewable to the player. The symbol array may include occurrences of non-winning symbol combinations where no value payout is awarded to the player, or occurrences of winning symbol combinations (reflected in a pay table) where value payouts are awarded to the player. In addition, the main display device 31 may display animation, 2-D or 3-D images and digital video playback.

[0038] For video gaming machines, the main display device 31 may be implemented as a CRT, an LCD, a VFD, a plasma display, an organic liquid crystal display or other type of video display suitable for use in a gaming machine, and includes a touch screen. For example, in a video gaming machine offering a slot game, the main display device 31 may include an LCD-TFT display displaying video reel artwork symbols and blank symbols.

[0039] For mechanical spinning reel slot machines, the main display device 31 includes a reel display area and may additionally include a touch screen.

Alternatively, the touch screen may be provided at a location disposed part from the main display device 31. The reel display area is adapted to display game information to a player while, at the same time, allowing the player to view a reel symbol array provided by the stopped mechanical spinning reels. The game information displayed to the player may include game denominations, available credits, pay lines, wagering information, and other suitable game information. When the mechanical spinning reels are rotated and stopped, the resulting symbol array in conjunction with game information displayed in the reel display area provide a game outcome and game status to the player.

[0040] Referring again to FIG. 1, the gaming machine 10 may also include a box top 34 having additional speaker(s) 36 and a top box display device 38.

Although not separately illustrated, the top box display device 38 may include a camera and/or a microphone, and/or physical objects such as mechanical reels, wheels, or dice. The top box display device 38, if configured as a dynamic display (e.g., a flat panel video display), may enable a number of game enhancements such as bonus games, interactive tournament games, progressive jackpot games, etc. Alternatively, the top box display device 38, if configured as a static display, may display award information such as pay tables for base or bonus games via glass art.

[0041] The gaming machine 10 may also include a player control panel 44. The player control panel 44 may be provided with a number of pushbuttons or touch-sensitive areas (*i.e.*, touch screen) that may be pressed by a player to select games, make wagers, make gaming decisions, etc. As used herein, the term "button" is intended to encompass any device that allows a player to make an input, such as a mechanical input device that must be depressed to make an input selection or a display area that a player may simply touch. The number of pushbuttons may include one or more "Bet" buttons for wagering, a "Max Bet" button for making the maximum wager allowable for the game, a "Play" button for beginning play, a "Repeat" button for repeating the previous wagering selection, a "Collect" button for terminating play and cashing out of the game, a "Help" button for viewing a help screen, a "See Pays" button for causing the main display device 31 to generate one or more display screens showing the odds or payout

information for the game or games provided by the gaming machine 10, and a "Call Attendant" button for calling an attendant. Further, although the player control panel 44 is shown to be separate from the main display device 31, it should be understood that the control panel 44 could be generated as a touch-sensitive screen by the main display device 31.

[0042] Referring again to FIG. 1, when a player inserts value in the gaming machine 10, credits corresponding to the amount deposited are displayed on a credit meter of the gaming machine 10. After depositing the appropriate amount of value and making appropriate selections, the player begins base game play by pulling a mechanical arm or by pushing an appropriate button such as a Bet button, a Max Bet button, or a Play button on the player control panel 44. Subsequent game play outcome displayed via the main display device 31 may be determined either centrally or locally (1) using a random number generator (RNG) resulting in a pseudo random set of outcomes, or (2) by selecting a game outcome from a fixed set of outcomes (pooled), or (3) other suitable technique. In addition, when triggered by a bonus triggering event such as an occurrence of selected symbols, a bonus game may be made available to the player. Like base game play, an outcome associated with bonus game play may be determined using an RNG, a fixed set of outcomes, or other suitable technique. Additional details describing enhanced game play on the gaming machine 10 having an enhanced game play scheme are included below as described in connection with FIGs. 3-22.

[0043] Fig. 2 is a block diagram of a number of components that may be incorporated in the gaming machine 10 of FIG 1. Referring to Fig. 2, the gaming machine 10, includes a controller 200 that may comprise a program memory 202 (including a read only memory (ROM)), a microcontroller-based platform or microprocessor (MP) 204, a random-access memory (RAM) 206 and an input/output (I/O) circuit 208, all of which may be interconnected via a communications link, or an address/data bus 210. The microprocessor 204 is capable of displaying images, symbols and other indicia such as characters, people, places, things, and faces of cards. The RAM 206 is capable of storing event data or other data used or generated during a particular game. The program memory 202 is capable of storing program code that controls the gaming machine 10 so that it plays a particular game in accordance with applicable math models, game rules, and pay tables. For example, when an additional coin-in amount is received for a wager, the microprocessor 204, executing code in the program memory 202, causes a bonus triggering event to occur and then enables subsequent bonus game play.

[0044] It should be appreciated that although only one microprocessor 204 is shown, the controller 200 may include multiple microprocessors 204. For example, the controller 200 may include one microprocessor for executing low level gaming functions and another processor for executing higher-level game functions such as some communications, security, maintenance, etc. Similarly, the memory of the controller 200 may include multiple RAMs 206 and multiple program memories 202, depending on the requirements of the gaming machine

10. Although the I/O circuit 208 is shown as a single block, it should be appreciated that the I/O circuit 208 may include a number of different types of I/O circuits. The RAM(s) 206 and program memory(s) 202 may be implemented as semiconductor memories, magnetically readable memories, and/or optically readable memories, etc. Further, the term “controller” is used herein to refer collectively to the program memory 202, the microprocessor 204, the RAM 206 and the I/O circuit 208.

[0045] Fig. 2 illustrates that multiple peripheral devices, depicted as peripheral devices 211, 212, and 214, may be operatively coupled to the I/O circuit 208. The peripheral devices may include a control panel with buttons, a coin slot acceptor, a note acceptor, a bill validator, a card reader, a keypad, a sound circuit driving speakers, a card reader display, a video display, a touch screen, etc. In the case of a spinning reel slot machine, the peripheral devices may include a number of electro-mechanical spinning reels and a mechanical arm similarly coupled to the I/O circuit 208. Although three peripheral devices are depicted, more or less peripheral devices may be included.

[0046] It should be appreciated that although the controller 200 is a preferable implementation of the present invention, the present invention also includes implementation via one or more application specific integrated circuits (ASICs), field programmable gate arrays (FPGA), adaptable computing integrated circuits, one or more hardwired devices, or one or more mechanical devices.

[0047] One manner in which the gaming machine 10 may operate is described below in connection with one or more flowchart(s) that represents a number of

portions or routines of one or more computer programs, which may be stored in one or more of the memories of the controller 200. The computer program(s) or portions thereof may also be stored remotely, outside of the gaming machine 10 and may therefore control the operation from a remote location.

[0048] As previously discussed, unlike prior art schemes that allow a player to be eligible for possible game play (e.g., bonus game, progressive jackpot) only via additional coin-in, the gaming machine 10 having an enhanced game play scheme allows a player to optionally “upgrade” game play by enhancing existing base game play, enhancing existing bonus game play, enhancing the frequency of bonus game play, enhancing pay table value payouts, etc.

[0049] FIG. 3 is a flowchart of an embodiment of an enhanced game play scheme routine 300 that may be performed by the controller 200 of the gaming machine 10 or by another controller coupled to the controller 200 (a “coupled controller”) during game play. The enhanced game play scheme routine 300 provides one example of game play where, in response to receipt of a second wager to select an option, a player is provided with enhanced game play.

Although discussed below in the context of a video slot game for illustrative purposes, it is contemplated that the enhanced game play scheme routine 300 may be executed in conjunction with any number of other wagering base or bonus games provided by gaming machines.

[0050] Referring to FIG. 3, the enhanced game play scheme routine 300 begins operation when the controller 200 provides an option for enhanced game play of the wagering game on the gaming machine 10 (step 302). Exercising the option

by a player may result in (1) providing more frequent bonus game play, (2) providing a larger value payout average for bonus game play, (3) providing more frequent bonus game play and providing a larger payout for bonus game play, (4) providing a larger value payout average for base game play, (5) providing a guaranteed payout at a predetermined value if a game outcomes yields only non-winning symbol combinations, and (6) providing one or more game features.

[0051] Game play is enabled upon detecting a first wager from a player (step 304). Detection of the first wager includes detecting a value input and detecting a bet. The controller 200 detects the value input when a player deposits one or more of coins, paper currency, card, or a voucher into a value input device of the gaming machine 10. When the controller 200 detects the value input, a number of credits associated are displayed on a credit meter of the main display device 31. After value input detection, the controller 200 enables a pay line selection. If there is only one pay line, the controller 200 enables initiation of base game play. If there is more than one pay line, the controller 200 also enables a bet-per-pay line selection. The bet-per-pay line selection causes an amount per pay line to be bet or wagered with the total wager divided equally between each selected pay line if multiple pay lines are selected. The bet-per-pay line is also displayed to the player via a bet meter on the gaming machine 10. In addition, the controller 200 enables the player to select a maximum bet (via a “Max Bet Spin” button, for example). Thus, the player may chose the maximum bet option causing maximum pay line selection and maximum credits rather than the pay line selection and the bet per pay line selection.

[0052] Pay line selection and bet per pay line selection may be made by the player using a touch screen and/or a mechanical button panel. FIG. 5 is an exemplary mechanical button panel 450 for a slot game play on a slot machine having one or more of the enhanced game play scheme routines described herein. The mechanical button panel 450 includes four buttons 451, 452, 453, and 454 for pay line selection, and five buttons 461, 462, 463, 464, and 465 for a number of credit(s) bet per pay line. Also included is button 455 which when selected, may enable the player selection of the option for enhanced game play. Thus, in a preferred embodiment, providing the option for enhanced game play may include a first wager where the player selects a maximum number of pay lines available for the slot game.

[0053] Referring again to FIG. 3, the option for enhanced game play is selected, or exercised, when the player wagers additional credits. Thus, enhanced game play is enabled upon detecting a second wager from the player (step 306). The amount of the second wager may vary depending on the wagering game offered and further depending on the pay lines selected and the bet per pay line. For example, if enhanced game play requires an additional 5 credits per credit bet (per pay line), then enhanced game play for a 15 pay line bet at 5 credits per pay line would require a second wager equivalent to 25 credits. The total amount wagered for the game would therefore be 100 credits; 75 credits for “un-enhanced” game play plus 25 credits to upgrade to enhanced game play.

[0054] Upon detecting the second wager, the controller 200 enables enhanced game play of the wagering game (step 308); in the illustrated example, enables a

reel spin. The player may spin the reels by depressing a button such as a "Spin Reels" pushbutton provided on the player control panel 44 or by depressing a video display button provided by a touch screen on the gaming machine 10. Alternatively, if the slot game is a mechanical spinning reel slot game utilizing a number of mechanical spinning reels, the player may pull a handle (e.g., an electro-mechanical arm) provided on the gaming machine 10 to initiate the reel spin. In either case, the controller 200, having determined a game outcome based on operation of a pseudo random generator device, stops the reels such that they display a reel symbol array representing the game outcome associated with enhanced game play (step 316). If the reel symbol array includes a winning symbol combination and/or if associated bonus game play yields credits, a value payout (*i.e.*, one or more credits) is awarded to the player (step 318).

[0055] The game outcome and/or the value payout may vary, depending on the enhancement enabled upon detecting the second wager.

[0056] If the enhancement enabled is an increase in the likelihood of an occurrence of a bonus game, detection of the second wager by the controller 200 may lower the threshold for an occurrence of a bonus game triggering event (step 310). For example, if un-enhanced game play requires that three like symbols (e.g., three Waitress symbols) appear, scattered within the reels symbol array in order to trigger bonus game play, then enhanced game play may require that only two like symbols appear in the reels symbol array in order to trigger bonus game play. An advantage of this type of game enhancement is increased

entertainment for the player as the interval between bonus game play is shortened.

[0057] If the enhancement enabled is an increase in the value payout average resulting from bonus game play (step 312), detection of the second wager by the controller 200 may cause one of any number of enhanced bonus game schemes having enhanced value payouts to occur. The enhanced value payouts for bonus game play yield an overall increased value payout average to the player as compared with the value payout average associated with un-enhanced game play. For example, if un-enhanced game play yields 10 free spins per bonus game, then enhanced game play, costing 3 additional credits on a nine line slot game, may yield 20 free spins per bonus game.

[0058] FIG. 6 is an exemplary display screen 500 that may be displayed on the gaming machine of FIG. 1 during performance of the enhanced game play scheme routine 300. The exemplary display screen 500 illustrates one example of an enhanced bonus game having an enhanced value payout. Referring to FIG. 6, the exemplary display screen 500 includes a video dashboard having a credit meter 502 for displaying a number of credits available for base game play (e.g., 400 credits), a pay line indicator 504 for displaying the number of pay lines selected (e.g., 15 pay lines), a bet indicator 506 for displaying the number of credits wagered per pay line for an un-enhanced game (e.g., a first wager of 1 credit per pay line). A total bet indicator 508 is also provided for displaying the total credits wagered for the game (e.g., 17 credits); in this case, 15 credits for the first wager, plus 2 credits for the second wager enabling enhanced bonus

game play. Also included are a number of player selectable buttons such as a select line button 512, a bet per line button 514, a spin/stop reels button 516, a max bet spin button 518, etc. Although illustrated as virtual touch screen buttons, some of the player selectable buttons may also be configured into the mechanical button panel described in connection with FIG. 4.

[0059] In the illustrated example, the player selects the option for enhanced game play by placing the second wager of 2 additional credits. Enhanced game play causes doubling of the number of free spins awarded during bonus game play. Thus, the player, having placed the second wager of two credits, having won a bonus game, and having selected a first symbol 520 from among five symbols (*i.e.*, five cowboy hats) during bonus game play, is awarded 16 free spins rather than 8 spins, thereby yielding an overall increased value payout average to the player as compared with the value payout average associated with un-enhanced game play.

[0060] In another example, if un-enhanced game play yields an un-enhanced value payout amount associated with a bonus game outcome, then enhanced game play may yield double, triple, etc., the un-enhanced value payout amount associated with the same bonus game outcome. Returning to the free spin example, for a second wager of 3 credits on a nine pay line slot game, enhanced game play may yield a bonus game having 10 free spins with double, triple, etc., value pay outs. In yet a further example, if un-enhanced game play allows a player during bonus game play to select/reveal items having a credit value until a bonus game-ending item (e.g., a terminator, a party pooper) is selected/revealed,

enhanced game play may allow the player during bonus game play to select/reveal items until two bonus game-ending items are selected/revealed (e.g., enhanced game play may include one "terminator saver"). In all of the above examples, additional credits, on average, are paid out to the player(s) during enhanced game play of a bonus game. Although too numerous to mention, other examples of an enhanced bonus game having increased value payouts for bonus game play, are contemplated.

[0061] If the enhancement enabled is an increase in the likelihood of an occurrence of a bonus game (step 310) and increase in the value payout average resulting from bonus game play (step 312), detection of the second wager by the controller 200 may cause one of any number of bonus game schemes to occur which result in increased bonus game occurrences, increased value payout averages per bonus game, or both. For example, if un-enhanced game play of a nine pay line game (e.g., "X Marks The Spot") having three separate bonus games where the first bonus game is triggered by three like reel symbols in a reel symbol array (e.g., Treasure Chest Scatter), the second bonus game yields five free spins (e.g., Free Spin Bonus), and the third bonus game yields three value symbols (e.g., Second Screen Bonus), then enhanced game play costing 6 additional credits may enable (a) the first bonus game to be triggered by two like reel symbols, (b) the second bonus game to yield ten free spins, and (c) the third bonus game to yield five value symbols. In one embodiment, the six additional credits provided via the second wager may be

allocated evenly (*i.e.*, 2 credits per bonus game) between the three bonus games.

[0062] If the enhancement enabled is an increase in the value payout average resulting from base game play (step 314), detection of the second wager by the controller 200 may cause one of any number of base game schemes having enhanced value payouts to occur. The enhanced value payouts for base game play yield an overall increased value payout average to the player as compared with the value payout average associated with un-enhanced game play. In other words, detection of the second wager by the controller 200 may cause an increase to all or part of the value payouts associated with winning symbol combinations displayed on a pay table of the gaming machine 10. For example, if un-enhanced game play of a five reel game has a value payout of 200 credits for five like symbols displayed in a symbol array, then enhanced game play costing 5 additional credits per game per credit bet (per pay line), may enable a value payout of 500 credits for the same five like symbols. Such an enhancement scheme maximizes the volatility of game play for those players wishing to exercise the option by placing the second wager. In another example, if un-enhanced game play of a five reel game has no value payout for two like symbols displayed in a symbol array, then enhanced game play costing 5 additional credits per game per credit bet (per pay line), may enable a 2 credit payout for all two like symbols displayed in the symbol array. Such an enhancement scheme allows for lower volatility game play for a player wishing to exercise the option by placing the second wager.

[0063] Another example of a base game scheme having an enhanced value payout includes providing a guaranteed value payout to the player at the conclusion of every game. Therefore, if the enhancement enabled is providing a guaranteed payout at a predetermined value if a game outcomes is a non-winning outcome (step 312), detection of the second wager by the controller 200 may cause one of any number of game schemes to occur where a guaranteed value payout occurs. For example, if un-enhanced game play of a nine pay line slot game only yields a value payout for winning symbol combinations appearing in a pay table of the gaming machine 10, then enhanced game play, costing one additional credit for every nine pay line slot game, yields a 10 credit value payout if the game outcome yields only non-winning symbol combinations.

[0064] If the enhancement enabled is activating one or more game feature(s), detection of the second wager by the controller 200 may cause one of any number of game features to be included in the game. The feature may, for example, be a special function indicator that indicates a random or predetermined position(s) on the reels. A symbol landing in the indicated position may be considered a wild symbol or a scatter symbol for that spin of the reels. The feature may be an expanding wild symbol such that if the player places the second wager, a regular wild symbol expands to occupy the entire reel. The feature may be to eliminate or override one or more less-favorable outcomes in a bonus game. The less-favorable outcome may, for example, be a low credit award or a stopper (e.g., a terminator or party pooper) symbol in a

bonus round where the player makes selections until selecting an item that reveals the stopper symbol.

[0065] FIG. 4 is a flowchart of another embodiment 320 of an enhanced game play scheme routine that may be performed by the controller 200 during game play of the gaming machine 10 or by a coupled controller during game play. The enhanced game play scheme routine 320 provides one example of game play where, in response to receipt of a second wager to select an option, a player is provided with enhanced game play.

[0066] Referring to FIG. 4, the enhanced game play scheme routine 320 begins operation when the controller 200 detects a first wager for game play of the wagering game (step 322). Next, the controller 200 enables game play and then displays a partial wagering game outcome (step 324); in this case, enables a reel spin and displays a partial reel symbol array provided by at least two stopped reels of the total number of reels. The controller 200 then provides an option to the player for enhanced game play (step 326) where enhanced game play includes increasing a value of some or all of the value payouts associated with the winning base game outcomes (e.g., winning symbol combinations). In response to receiving a second wager indicating player selection of the option (step 328), the controller 200 displays a full outcome associated with enhanced game play (step 332); in this case, stops the remaining spinning reels to display a full reel symbol array. If the full outcome associated with enhanced base game play includes a winning outcome, a value payout is awarded to the player (step

334) where the value payout reflects the increase of some or all of the value payouts associated with the winning base game outcomes.

[0067] FIGS. 7-12 are a series of exemplary display screens 600 that may be displayed during performance of yet another embodiment of an enhanced game play scheme routine 650 during game play of the gaming machine of FIG. 1. The exemplary display screens 600 illustrate one example of the enhanced game play scheme routine 650 where a reel symbol (e.g., a Super Wild symbol) is able to be repositioned in a reel symbol array if it is activated and if repositioning would yield a higher value payout to the player.

[0068] Referring to FIG. 7, the exemplary display screen 600 includes a video dashboard having a credit meter 602 displaying 842 credits, a pay line indicator 604 displaying 20 pay lines, a bet indicator 606 displaying a first wager of 1 credit per pay line, a total bet indicator 608 displaying total credits wagered of 20 credits for a first wager for game play. In the illustrated example of FIG. 7, the 842 credits displayed on the credit meter 602 reflect a deduction of 20 credits prior to the reel spin. As will be appreciated by those of ordinary skill in the art, in some slot game designs, the deduction of wagered credits may not be reflected on the credit meter 602 until after the reel spin.

[0069] Also included on the video dashboard of the exemplary display screen 600 are a number of player selectable buttons such as a select line button 612, a bet per line button 614, a spin/stop reels button 616, a max bet spin button 618, etc. Although illustrated as virtual touch screen buttons, the some of the player

selectable buttons may also be configured within the mechanical button panel described in connection with FIG. 4.

[0070] In the illustrated example of FIG. 7, one of the reel symbols on one of the reels (*i.e.*, on reel five) is designated as a super wild reel symbol 620 (*e.g.*, a Super Wild symbol) that is able to be repositioned in an outcome reel symbol array if the super wild symbol is activated and if repositioning would yield a higher value payout to the player. When the controller 200 detects a first wager of a first amount of credits from a player to play the slot game, the controller 200 provides an option to activate the super wild symbol 620.

[0071] The option is preferably provided only when the first wager includes player selection of a maximum number of pay lines available for the slot game. For example, for a reel symbol array having fifteen reel symbols and up to twenty player pay lines, the option is preferably provided only when the first wager includes player selection of twenty pay lines. It is contemplated that in other slot game designs, the option may be offered when less pay lines are selected, when the first wager includes a maximum number of credits per pay line bet, etc.

[0072] Referring to FIG. 8, upon receiving a second wager (*i.e.*, a second amount of credits, in this case 5 credits) indicating player selection of the option, the total bet indicator 608 reflects the second wager by increasing from 20 to 25 credits, the super wild symbol 620 is activated and enhanced slot game play is enabled. The second credit amount is preferably directly proportional to a number of credits bet per selected pay line(s). Activating may also include changing a color of the super wild reel symbol to notify the player of the activated state. Next, the

reels are rotated (see, FIG. 9) and stopped to display a first reel symbol array 621. If the super wild symbol 620 appears in the first reel symbol array 621 (see, FIG. 10), the super wild symbol 620 is repositioned (see, FIG. 11) to display a second reel symbol array 623 (see, FIG. 12) if the second reel symbol array has a higher value payout than the first reel symbol array. In the illustrated example of FIG. 12, the repositioned super wild symbol completes a four money-symbol pay line resulting in a 100 credit value output.

[0073] Because of the repositioning of the super wild symbol 620, a probability of an occurrence of a winning outcome is higher in the second reel symbol array than in the first symbol array. Further the super wild symbol is repositioned by the controller 200 to maximize the value payout to the player.

[0074] FIGS. 13-18 are a series of exemplary display screens 700 that may be displayed during performance of a further embodiment of an enhanced game play scheme routine 750 during game play of the gaming machine of FIG. 1. The exemplary display screens 700 illustrate one example of the enhanced game play scheme routine 750 where a reel displaying a first extra symbol is able to be “nudged”, or undergoes an additional slight movement, to reposition the first extra symbol in a reel symbol array if the additional movement would yield a higher value payout to the player.

[0075] Referring to FIG. 13, the exemplary display screen 700 includes a video dashboard having a credit meter 702, a pay line indicator 704 displaying 20 pay lines, a bet indicator 706 displaying a first wager of 1 credit per pay line, a total bet indicator 708 displaying total credits wagered of 20 credits. Also included are

a number of player selectable buttons such as a select line button 712, a bet per line button 714, a spin/stop reels button 716, a max bet spin button 718, etc. Although illustrated as virtual touch screen buttons, some of the player selectable buttons may also be configured within the mechanical button panel described in connection with FIG. 4.

[0076] In the illustrated example of FIG 13, a first extra reel symbol 720 (*i.e.*, a gold bar) and a second extra reel symbol 722 (*i.e.*, a money bag) are displayed above and below the first reel 724 of a first symbol array 727 of fifteen reel symbols. When the controller 200 receives a first wager of a first amount of credits from a player to play the slot game, the controller 200 provides an option to activate a possibility of movement of the first reel 724 to reposition either the first extra reel symbol 720 or the second extra reel symbol 722 after the reels spin and stop.

[0077] The option is preferably provided only when the first wager includes player selection of a maximum number of pay lines available for the slot game. It is contemplated that the option may be offered however, when less pay lines are selected, when the first wager includes a maximum number of credits per pay line bet, etc.

[0078] Referring to FIG. 14, upon receiving a second wager (*i.e.*, a second amount of credits) indicating player selection of the option, the total bet indicator 708 reflects the second wager by increasing from 20 to 25 credits, the possibility of movement of the first reel 724 to reposition either the first extra reel symbol 720 or the second extra reel symbol 722 is activated and therefore enhanced slot

game play is enabled. The second credit amount is preferably directly proportional to a number of credits bet per selected pay line(s). Activating may also include changing a color of the first and second extra reel symbol 720, 722 (see, FIG. 14) and/or displaying the words "SUPER NUDGE ACTIVATED" to notify the player of the activated state. Next, the reels are rotated (see, FIG. 15) and stopped to display a second reel symbol array 729 (see, FIG. 16). The first extra reel symbol 720 (*i.e.*, a bank safe) and the second extra reels symbol 722 (*i.e.*, a piggy bank) are also rotated and stopped (see, FIG. 16). If the addition movement of the first reel 724 to reposition the first extra symbol 720 into a third reel symbol array results in a higher value payout than the second symbol array (see, FIG. 17), then the first extra reel will nudge downward by one reel position to form the third symbol array 731. Similarly, if the addition movement of the first reel 724 to reposition the second extra symbol 722 into a third reel symbol array results in a higher value payout than the second symbol array, then the first extra reel will nudge upward by one reel position to form the third array 731. In the illustrated example of FIG. 18, repositioning the first extra symbol 720, a bank safe, into the third reel symbol array creates a five bank safe combination yielding in a higher value payout than the second symbol array.

[0079] Because of the possibility of repositioning either the first or second extra reel symbol, a probability of an occurrence of a winning outcome is higher in the third reel symbol array than in the second symbol array. Further, either the first or second extra reel symbol is repositioned via the additional movement of the first reel 724 by the controller 200 to maximize the value payout to the player.

[0080] FIGS. 19-22 are a series of exemplary display screens 800 that may be displayed during performance of yet a further embodiment of an enhanced game play scheme routine 850 during game play of the gaming machine of FIG. 1. The exemplary display screens 800 illustrate one example of the enhanced game play scheme routine 850 where an extra reel symbol is used to generate a new pay line having a winning symbol combination and yielding a value payout to the player.

[0081] Referring to FIG. 19, the exemplary display screen 800 includes a video dashboard having a credit meter 802 displaying 924 credits, a pay line indicator 804 displaying 20 pay lines, a bet indicator 806 displaying a first wager of 1 credit per pay line, a total bet indicator 808 displaying total credits wagered of 20 credits. Also included are a number of player selectable buttons such as a select line button 812, a bet per line button 814, a spin/stop reels button 816, a max bet spin button 818, etc. Although illustrated as virtual touch screen buttons, some of the player selectable buttons may also be configured within the mechanical button panel described in connection with FIG. 4.

[0082] In the illustrated example of FIG 19, an extra reel symbol 820 (*i.e.*, gold bar) is displayed above a first symbol array 827 of fifteen reel symbols. The extra reel symbol 820 is preferably displayed above the third reel 824 although it may be displayed above or below any of the reels. When the controller 200 receives a first wager of a first amount of credits from a player to play the slot game, the controller 200 provides an option to activate a possibility of generating an extra pay line that includes the extra reel symbol 820.

[0083] The option is preferably provided only when the first wager includes player selection of a maximum number of pay lines available for the slot game. It is contemplated that the option may be offered however, when less pay lines are selected, when the first wager includes a maximum number of credits per pay line bet, etc.

[0084] Referring to FIG. 20, upon receiving a second wager (*i.e.*, a second amount of credits) indicating player selection of the option, the total bet indicator 808 reflects the second wager by increasing from 20 to 25 credits, the possibility of generating an extra pay line including the extra reel symbol 820 is activated and enhanced slot game play is enabled. The second credit amount is preferably directly proportional to a number of credits bet per selected pay line(s). Activating may also include changing a color of the third reel 824 and/or displaying the words "SUPER SYMBOL ACTIVATED" to notify the player of the activated state (see, FIG. 20). Next, the reels are rotated (see, FIG. 21) and stopped to display a second reel symbol array 829 (see, FIG. 22). The extra reel symbol 820 is also rotated and stopped (see, FIG. 21). If the extra reel symbol 820 (*i.e.*, money bag) completes a winning symbol combination, the extra pay line 830 is generated including the first extra reel symbol 820 (see, FIG. 22). The extra pay line 830, including the extra reel symbol 820, may be generated to include five reel symbols in one in any number of patterns. In the illustrated example of FIG. 22, the extra symbol 820 in the extra pay line 830 creates a five moneybag combination yielding a value payout of 300 credits.

[0085] Because of the possibility of generating an extra pay line that includes the extra symbol 820, a probability of an occurrence of a winning outcome is higher in the third reel symbol array than in the second symbol array. Further, the extra pay line is generated by the controller 200 to maximize the value payout to the player.

[0086] As will be appreciated by those skilled in the art, a number of other alternatives exist for enhanced game play schemes that increase the coin-in revenue per game played. For example, the player may be required to place an extra wager (*i.e.*, the second wager) to buy virtually any feature or to make any feature available to the player.

[0087] As may be apparent from the discussion above, the gaming machine having a number of enhanced game play schemes increases coin-in revenue per game played and increases player enjoyment. Thus, unlike prior art schemes that allow a player to become eligible for possible game play via an additional wager (*e.g.*, bonus game play, progressive jackpot game play), the gaming machine having one or more enhanced game play scheme allows a player "supersize" existing game play by enhancing base game play, enhancing bonus game play, enhancing the frequency of bonus game play, enhancing pay table value payouts, etc., via an additional wager amount.

[0088] From the foregoing, it will be observed that numerous variations and modifications may be affected without departing from the scope of the novel concept of the invention. It is to be understood that no limitations with respect to the specific methods and apparatus illustrated herein is intended or should be

inferred. It is, of course, intended to cover by the appended claims all such modifications as fall within the scope of the claims.